

## Abstracts

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**A NEW INEQUITY-IN-HEALTH INDEX BASED ON MILLENIUM DEVELOPMENT GOALS: METHODOLOGY AND VALIDATION**Eslava-Schmalbach JH<sup>1</sup>, Alfonso H<sup>2</sup>, Oliveros H<sup>3</sup>, Gaitan-Duarte H<sup>1</sup>, Agudelo C<sup>1</sup><sup>1</sup>National University of Colombia, Bogota, D.C, Colombia, <sup>2</sup>University of Western Australia, Perth, WA, Australia, <sup>3</sup>Universidad Militar Nueva Granada – Clínica San Rafael, Bogota, D.C, Colombia

**OBJECTIVES:** Developing a new Inequity-in-Health Index (IHI) assuming inequity as “inequality of health outcomes,” based on Millennium Development Goals (MDG). **METHODS:** Ecological study. Countries from around the world were included from United Nations, the World Bank, and a nonprofit organization's databases. The reliability and validity of this bidimensional IHI was tested. Main factor analysis (promax rotation) and main component analysis were used. **RESULTS:** IHI was constructed with six variables: underweight children, child mortality, death from malaria in children aged 0–4, death from malaria at all ages, births attended by skilled health personnel, and immunization against measles. The IHI had high internal consistency (Cronbach's alpha = 0.8504), was reliable (Spearman rho = 0.9, p = 0.0000), and had a value of 0.3033 around the world (range: 0–0.5984). IHI had high correlation with the human development and poverty indexes, health gap indicator, life expectancy at birth, probability of dying before 40 years of age, and Gini coefficients (Spearman rho = 0.7, p = 0.0000). IHI discriminated countries by income, region, indebtedness, and corruption level (Kruskal Wallis, p = 0.01). IHI had sensitivity to change p = 0.0000. **CONCLUSIONS:** IHI is a bidimensional, valid and reliable index to monitor MDG. A new reliable methodology for developing bidimensional indicators is shown, which could be used for constructing other ones with their corresponding scores and graphs.

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**REGIONAL VARIATION IN MEDICAID ENROLLMENT AMONG MEDICAL EXPENDITURE PANEL SURVEY (MEPS) POPULATION**

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**OBJECTIVES:** Each state sets its own guidelines regarding eligibility and services for Medicaid. Therefore, people with similarly low socioeconomic status across the different states may not be of the same likelihood to enroll in Medicaid. State policies proposed to address uninsured population include the expansion of Medicaid programs. This study aimed to examine the demographic and geographical factors influencing the Medicaid enrollment for a representative sample of non-institutionalized population in the US. **METHODS:** This study used the household survey data from the Medical Expenditure Panel Survey (MEPS) (2006, Panel 5&6) to explore the predictors for enrollment of Medicaid programs. The study population (n = 2879) was defined as males, 19–64 years old, and with the income of, and lower than middle level (family income as a percentage of poverty). The cut-off of middle poverty level was used, according to some state eligibility criteria as high as 300% federal poverty line. Females were excluded in order to eliminate pregnancy-related Medicaid enrollment. Chi-square tests were performed on age, marital status, employment status, education level, and region compared to those who reported no insurance coverage over the year. A stepwise logistic model was also applied to identify predictors from the descriptive analyses. **RESULTS:** Among the MEPS male respondents, 27% of people reported their enrollment in Medicaid in 2006. People with older age and being unemployed were more likely to be enrolled in Medicaid programs. Compared to people from South region, those from Northeast, Mid-west, and West regions were more likely to be Medicaid enrollees [Odds Ratios (Confidence Interval): 3.598(2.686, 4.822), 2.591(1.955, 3.434) and 2.941(2.349, 3.681), respectively]. **CONCLUSIONS:** The states in regions other than the South were more likely to help poor people enrolled into Medicaid. This study suggested that a Medicaid expansion of Medicaid enroll in the South among the currently uninsured population is warranted.

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**THE EFFECT OF THE WITHDRAWAL OF HOSPITAL DAILY FEE ON THE NUMBER OF ADMISSIONS TO ACUTE CARE HOSPITAL WARDS IN HUNGARY**Böncz I<sup>1</sup>, Kövi R<sup>2</sup>, Körösi L<sup>2</sup>, Vas G<sup>3</sup>, Varga S<sup>2</sup>, Kriszbacher I<sup>3</sup>, Betlehem J<sup>3</sup>, Gulácsi L<sup>4</sup>, Molnár A<sup>5</sup>, Sebestyén A<sup>5</sup><sup>1</sup>University of Pécs, Pécs, Hungary, <sup>2</sup>National Health Insurance Fund Administration (OEP), Budapest, Hungary, <sup>3</sup>University of Pécs, Pécs, Hungary, <sup>4</sup>Corvinus University of Budapest, Budapest, Hungary, <sup>5</sup>National Health Insurance Fund Administration, Budapest, Hungary

**OBJECTIVES:** On the February 15, 2007 new forms of co-payment were introduced in Hungary: visit fee (HUF300/visit ≈ 0.11 Euro) in the outpatient care and hospital daily fee (HUF300/day ≈ 0.11 Euro) in the inpatient care. Both regulations were withdrawn by a nationwide referendum as of April 2008. The aim of this study is to analyze the effect of the withdrawal of hospital daily fee on the number of inpatient admissions to acute care hospital wards in Hungary. **METHODS:** The data derive from the financial database of the National Health Insurance Fund Administration (OEP) of Hungary covering the period of 2006–2008. We analyzed the number of admissions during a 7-month period before (from September 2007 to March 2008) and after (from April 2008 to October 2008) the withdrawal of daily fee. **RESULTS:** During the 7-month period before the withdrawal of hospital daily fee the total number of admissions was 1,245,605, while during the 7-month period after the withdrawal of daily fee it increased to 1,284,430. The average monthly number of admissions was 177,944 before and 183,490 after the withdrawal of daily fee. Both represent a 3.1% increase in the number of acute care admissions. **CONCLUSIONS:** The withdrawal of hospital daily fee in the Hungarian inpatient care resulted in a significant increase (3.1%) of acute inpatient care admissions on a short-term.

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**THE POWER OF EPIDEMIOLOGICAL ESTIMATORS TO RATE INEQUALITIES IN HEALTH IN HIGH-INCOME OECD COUNTRIES, 1998–2002**Eslava-Schmalbach JH<sup>1</sup>, Alfonso H<sup>2</sup>, Gaitan-Duarte H<sup>1</sup>, Agudelo C<sup>1</sup><sup>1</sup>National University of Colombia, Bogota, D.C, Colombia, <sup>2</sup>University of Western Australia, Perth, WA, Australia

**OBJECTIVES:** Examining the power (ability) of classical epidemiological estimators to rate inequalities in health in univariate and composite ways. **METHODS:** Ecological study. Estimators used to show disparities were ratio, excess risk, attributable risk (AR) and relative difference. All of them were weighted by population size. Kappa concordance coefficient was used between weighted estimators and weighted Gini coefficients for each health outcome used. Cumulative variance at first factor in principal component analysis was used for determining the estimators' suitability for use in a composite index. Twenty-four high-income OECD (Organisation for Economical Cooperation and Development) countries, between 1998 to 2002 were included. Data were obtained from OECD health data for 2004 (3rd edition). Data concerning child mortality and gross domestic product (GDP) were obtained from World Development Indicators for 2005 on CD-ROM. Main outcomes compared among countries were: maternal mortality, child mortality, infant mortality, low birth weight, life expectancy, measles' immunisation and DTP immunisation. **RESULTS:** Ratio and AR ranked maternal mortality as being the condition having the most disparity; risk excess ranked vaccination programmes and relative difference ranked low birth weight as being the worst condition. There was concordance in the ranking of inequities among ratio, AR and Gini coefficients (p < 0.05). Cumulative variance in the first factor was higher for ratio and AR when they were used for constructing a composite index. **CONCLUSIONS:** Ratio and AR were better than risk excess and relative difference for measuring disparities in health and constructing composite inequity in health indexes.

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**EFFECT OF THE INTRODUCTION OF VISIT FEE ON THE NUMBER OF VISITS TO GENERAL PRACTITIONERS IN HUNGARY**Körösi L<sup>1</sup>, Kövi R<sup>1</sup>, Varga S<sup>2</sup>, Sebestyén A<sup>3</sup>, Kriszbacher I<sup>3</sup>, Betlehem J<sup>3</sup>, Brodsky V<sup>4</sup>, Karpati K<sup>4</sup>, Molnár A<sup>5</sup>, Böncz I<sup>5</sup><sup>1</sup>National Health Insurance Fund Administration (OEP), Budapest, Hungary, <sup>2</sup>University of Pécs, Pécs, Hungary, <sup>3</sup>National Health Insurance Fund Administration, Budapest, Hungary, <sup>4</sup>Corvinus University of Budapest, Budapest, Hungary, <sup>5</sup>University of Pécs, Pécs, Hungary

**OBJECTIVES:** On February 15, 2007 new forms of co-payment were introduced in Hungary: visit fee (HUF300/visit) in the primary and outpatient care and hospital daily fee (HUF300/day) in the inpatient care. The aim of this study is to analyze the effect of the introduction of visit fee on the number of patient-visits to general practitioners in Hungary. **METHODS:** The data derive from the financial database of the National Health Insurance Fund Administration (OEP) of Hungary covering the period of 2006–2008. We analyzed the number of patient visits during a 6-month period before (from September 2006 to February 2007) and after (from March 2007 to August 2007) the introduction of visit fee. **RESULTS:** During the 6-month period before the introduction of visit fee the total number of visits was 33,694,339, while during the 6-month period after the introduction of visit fee it decreased to 24,901,693. The average monthly number of visits to general practitioners was 5,615,723 before and 4,150,282 after the introduction of visit fee. Both represent a 26.1 % decrease in the number of visits to general practitioners. **CONCLUSIONS:** The introduction of visit fee in Hungary resulted in a significant decrease of patients' visits to general practitioners. However we do not have information whether visits failed to be realized were really unnecessary or not. Other elements of the health care reforms could have also influenced the number of visits.

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**THE EFFECT OF THE WITHDRAWAL OF VISIT FEE ON THE NUMBER OF PATIENT-VISITS TO OUTPATIENT CARE DEPARTMENTS IN HUNGARY**Kövi R<sup>1</sup>, Körösi L<sup>1</sup>, Sebestyén A<sup>2</sup>, Ágoston I<sup>3</sup>, Nagy Z<sup>4</sup>, Kriszbacher I<sup>3</sup>, Oláh A<sup>5</sup>, Molnár A<sup>5</sup>, Péntek M<sup>6</sup>, Böncz I<sup>6</sup><sup>1</sup>National Health Insurance Fund Administration (OEP), Budapest, Hungary, <sup>2</sup>National Health Insurance Fund Administration, Budapest, Hungary, <sup>3</sup>University of Pécs, Pécs, Hungary, <sup>4</sup>Health Insurance Supervisory Authority, Budapest, Hungary, <sup>5</sup>Flor Ferenc County Hospital, Kistarcsa, Hungary, <sup>6</sup>University of Pécs, Pécs, Hungary

**OBJECTIVES:** On the February 15, 2007 new forms of co-payment were introduced in Hungary: visit fee (HUF300/visit ≈ 0.11 Euro) in the outpatient care and hospital daily fee (300 HUF/day ≈ 0.11 Euro) in the inpatient care. Both were withdrawn by the Hungarian government from April 2008 following the results of a nationwide referendum. The aim of this study is to analyze the effect of the withdrawal of visit fee on the number of patient-visits to outpatient care departments in Hungary. **METHODS:** The data derive from the financial database of the National Health Insurance Fund Administration (OEP) of Hungary covering the period of 2006–2008. We analyzed the number of patient visits during a 7-month period before (from September 2007 to March 2008) and after (from April 2008 to October 2008) the withdrawal of visit fee. **RESULTS:** During the 7-month period before the withdrawal of visit fee the total number of visits was 30,964,155, while during the 7-month period after the withdrawal of visit fee it decreased to 29,812,259. The average monthly

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